#### **UNIVERSITY OF MUMBAI**

No.UG/ICC/2013-14/66 MUMBAI- 400 032 11<sup>th</sup> October 2013

The Senior Manager, Federation of Indian Pilots, Institute of Aviation and Aviation Safety (I.A.A.S.) Air India Complex, Old Air Port, Kalina, Santacruz (East), <u>MUMBAI- 400 029</u>.

Sir,

I am to inform you that the recommendation made by the Faculty of Science at its meeting held on 12<sup>th</sup> February, 2013 has been accepted by the Academic Council at its meeting held on 27<sup>th</sup> February, 2013 <u>vide</u> item No.4.5 and subsequently approved by the Management Council at its meeting held on 20<sup>th</sup> June, 2013, 21<sup>st</sup> June, 2013 and 11<sup>th</sup> July, 2013 <u>vide</u> item No.13 and that in accordance therewith, in exercise of the powers conferred upon the Management Council under Section 54 (1) and 55 (1) of the Maharashtra Universities Act, 1994, the Ordinances 6048 and 6049 and Regulations 8619, 8620, 8621, 8622 and 8623 and syllabus as per the Credit Based Semester & Grading System for Diploma in Aviation Safety and Hospitality is introduced, which is available on the University's web site (www.mu.ac.in) and that the same has been brought into force with effect from the academic year 2012-13.

Yours faithfully,

Deputy Registrar Under Graduate Studies

#### <u>A.C/4.5/27/02/2013</u> M.C/13/20/06/2013, 21/06/2013 &11/07/2013

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11<sup>th</sup> October, 2013

Copy forwarded with compliments for information to :-

- 1) The Dean, Faculty of Science.
- 2) The Chairman, <u>Ad-hoc</u> Board of Studies in Aviation.
- 3) All the Principals /Directors of Colleges institutes of Aviation.
- 4) The Professor-cum-Director, Institute of Distance and Open Learning (IDOL)
- 5) The Director, Board of Colleges and University Development,
- 6) The Co-Ordinator, University Computerization Centre,
- 7) The Controller of Examinations.

Sd/-Deputy Registrar

Under Graduate Studies

### AC 27/2/13 Item No. 4.5

# UNIVERSITY OF MUMBAI



## Ordinances, Regulations and Syllabus

## **Program - Diploma**

## **Course - Aviation Safety and Hospitality**

Introduced as per Credit Based Semester and Grading System from Academic year 2012-2013

#### O. 6048 Title of the Program

Diploma in Aviation Safety and Hospitality

#### R. 8619 Duration

• One year part time divided into two semesters

#### R. 8620 Intake capacity

• 60 learners

#### O. 6049 Eligibility

- 12th standard pass (HSC) or equivalent
- Diploma awarded by MSBTE (10 + 3) or equivalent
- Medical examination / Certificate as per D.G.C.A guidelines, by a qualified Medical Doctor.

#### R. 8621 Fee

• Rs. 65000/- per semester

#### Faculty requirement (Visiting)

- Two Aviation professionals as instructors to teach Aviation related matters who have successfully completed Cabin crew training & worked in scheduled Airlines
- One grooming and etiquette expert
- One Instructor to teach personality development and communication skills
- One MBBS Doctor to conduct First aid classes
- One Instructor to teach safety & emergency procedures and dangerous goods rules

#### **Industry Visits**

- Visit to a live aircraft
- Visit to a wide body aircraft mockup
- Visit to a flight kitchen
- Visit to a wine and cheese farm
- Visit to Fire Brigade Station & Fire Fighting Area to practice Fire Fighting.
- Visit to Swimming Pool area.

#### INFRASTRUCTURE

Front / Reception Area	1
Class Rooms (A/C)	3
Rooms for Practicing Application of First Aid to the passengers	1
Live Aircraft	1
Computer Lab 10 Computers with Internet facility	1
Grooming Rooms	1
Aircraft Chairs	10
Computers, Printers, Scanners & Laptops for Audio Visual	3
Presentations	
Emergency Equipment like Fire Extinguishers, Life Jackets,	-
Oxygen Cylinders, Live Aircraft as required	
Dummy for CPR (Cardio Pulmonary Re-Sustentation) as required	-
First Aid Kits for Teaching First Aid	6

### **R. 8622** Scheme of Examination

SEM	COURSE	TITLE
	CODE	
	USDAV101	INTRODUCTION TO AVIATION INDUSTRY &
Ι		HOSPITALITY
	USDAV102	PROFESSIONAL COMMUNICATION SKILLS
	USDAV103	GOVERNMENT REGULATORY AGENCIES
		AND AIRCRAFT FAMILIARISATION
	USDAV104	CABIN MANAGEMENT
	USDAV201	CREW RESOURCE MANAGEMENT (CRM)
II	USDAV202	EMERGENCY PROCEDURES IN EVACUATION AND DITCHING
	USDAV203	FIRE SAFETY AND SECURITY PROCEDURES
	USDAV204	FIRST AID & DANGEROUS GOODS RULES
	USDAVP1	Practical 1.1
	USDAVP2	Practical 1.2

Semester	Course	<b>Theory</b>	Marks	Practical	Total	Credits
		Internal	Sem End (2 Hours Duration)	Internal Marks		
I	USDAV10	40	60		100	2
1	1 USDAV10 2	40	60		100	2
	USDAV10 3	40	60		100	2
	USDAV10 4	40	60		100	2
II	USDAV20	40	60		100	2
11	USDAV20 2	40	60		100	2
	USDAV20 3	40	60		100	2
	USDAV20 4	40	60		100	2
	USDAVP1 USDAVP2			50 50	50 50	2 2
Total				50	900	20

Internal Evaluation	Marks
Active Participation	05
Overall Conduct	05
One Test	10
One Project /Case Study/	20
Assignment	
Total	40

## Semester End Question Paper Pattern for each course:

Question	Unit	Marks	Maximum Marks with option
Q1	Ι	15	20
Q2	II	15	20
Q3	III	15	20
Q4	I, II, III	15	20

**Practical Evaluation Specify** 

#### **Practical examination**

Practical examination shall be conducted at the end of Semester II

- **R. 8623** passing standard
  - a) Learner shall be awarded Diploma if he/she obtains any one of the grade 'O', 'A', 'B', 'C', 'D', 'E' in each of the course of Semester I and II
  - b) Learner shall be admitted to second semester of the program irrespective of the grades secured in any of the course of the first semester
  - c) Learner shall be allowed to appear for additional examination in theory in the courses where he/she has secured grade 'F'
  - d) Additional examination will be conducted within one month after declaration of the result of semester II

#### SEMESTER I

COURSE – I	LECTURE	PRACTICAL
USDAV101 – INTRODUCTION TO AVIATION INDUSTRY &	Hours	HOURS
HOSPITALITY		
<b>UNIT 1 – INTRODUCTION TO AVIATION INDUSTRY</b>		
1. Civil aviation in India	15	10
2. Infrastructure and related facilities		
3. Scheduled airlines		
4. Airline alliance		
5. Airlines in India		
6. Full service carriers		
7. Low cost carriers		
8. Corporate jets and charters		
Unit II –		
(A) AVIATION HOSPITALITY		
1. Introduction to civil aviation hospitality	15	
2. Cabin crew profession		
3. History, origin and milestones of cabin crew profession		
4. Duties and responsibilities.		
5. A typical working day of a cabin crew		
6. Benefits and challenges of the profession		
or Denemis and enamenges of the profession	15	
(B)Personal Development & Grooming	15	
1. Qualification, Physical requirements, medical fitness		
2. Grooming. & Etiquette		
3. Hair styles		
4. Hands and feet	15	
5. Makeup	15	
6. Jewellery and other accessories		
7. Perfumes and scent		
8. Dress code and attire		
8. Diess code and attre		
UNIT III - LIEE STVLE CHANCES ADADTATIONS & HEALTHY LIVING		
LIFE STYLE CHANGES, ADAPTATIONS & HEALTHY LIVING		
1. Life style Changes and coping with them		
<ol> <li>Healthy life styles</li> <li>Food and nutrition</li> </ol>		
4. Exercise and benefits of regular exercise		
5. Techniques for getting quality rest		
6. Proper handling techniques of galley equipments		
7. Personal health		
8. Health risks of frequent flying		
9. Known effects of frequent flying		
10. Personal safety and security		
11. while travelling and in the hotel		
12. Sightseeing or staying out of the hotel		
13. Preparing for emergency while on duty travel		

COURSE – II USDAV102 – PROFESSIONAL COMMUNICATION SKILLS.	LECTURE DURATION	PRACTICAL HOURS
<u>UNIT - I – ENGLISH LANGUAGE (LISTENING &amp;</u>	15	10
<b>SPEAKING)</b> Communication Skills: All communication required for plain English speaking skills viz listening, speaking	15	
<ul> <li><u>UNIT II – ENGLISH LANGUAGE (READING &amp; WRITING)</u> All communication required for plain English speaking skills viz Reading and writing.</li> <li>[This will include writing resumes, handling interviews, Announcements, Safety procedures]</li> </ul>	15	
UNIT III CROSS' CULTURAL COMMUNICATION 1. Cross cultural Communication and Influence. 2. Managing passenger interaction 3. Difficult situations, difficult passengers. 4 Passenger complaints		

COURSE – III USDAV103 – GOVERNMENT REGULATORY AGENCIES AND AIRCRAFT FAMILIARISATION	LECTURE HOURS	PRACTICAL HOURS
<u>UNIT – I</u>		
GOVERNMENT REGULATORY AGENCIES		
1. Role of Government Regulatory Agencies	15	20
2. Director General of civil Aviation		
3. Civil Aviation Requirements (CAR)		
4. Civil aviation rules and authority of Pilot in command		
5. International Civil Aviation Organization (ICAO)		
6. International Transport Association (IATA)		
7. Travel documents for international Travel		
8. Customs and Immigration		
UNIT II		
AVIATION TERMS & TIME ZONES	15	
1. Aircraft types		
2. Passenger jets		
3. Common aviation terms and abbreviations		
4.Twenty four hour clock		
5. Time zones		
6. Greenwich mean time and Universal coordinated time		
7. Airport codes		
8. Airline designators		
UNIT – III		
AIRCRAFT FAMILIARISATION		
1. Theory of flight and how aircrafts fly	15	
2. Visit to an aircraft		
3. Airplane controls and cockpit		
4. Aircraft cabin familiarization		
5. Aircraft layout terminology		
6. Aircraft furnishing and systems		

UNIT I       ROLES & RESPONIBILITIES OF CABIN CREW         1. Preparing to undertake a flight       15         2. Preflight briefing       15         3. Prior to passenger boarding       15         4. Boarding of passengers       5. Special handling of passengers         6. Public announcements       7. Safety demonstration         8. During taxi       9. Preparing for take off         10. During cruise       11. Preparing for landing         12. After landing       15         UNIT II       GALLEY EQUIPMENTS AND CATERING         1. Aircraft galleys and equipments       15         2. Preflight galley checks       15         3. Airline catering and delivery of catering on board       15         4. Food Service and Hygiene       15         5. Special meals and special meals       6. Special meal codes	CTICAL
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6. Special meal codes	
7. Meal service, types and service levels	
UNIT – III	
CHEESE AND BEVERAGES	
1. Types of beverages	
2. Service of beverages	
3. History of wines, wine making and wine producing areas	
4.Service of wines	
4. Cheese. Types, production and service	

#### SEMESTER II

SEMESTER II COURSE – V USDAV201 - CREW RESOURCE MANAGEMENT (CRM)	LECTURE HOURS	PRACTICAL HOURS
<u>UNIT- I</u> INTERPERSONAL SKILLS 1.Team Building 2.Handling communication between crew members	15	10
<ul><li>3.interpersonal skills</li><li>4. Communicating with passengers</li></ul>	15	
<u>UNIT - II</u> . ENHANCING CREATIVITY AND RESOURCES 1. Enhancing Creativity in different areas 2. Utilizing resources for difficult situations. 3.Using innate reflexes to handle emergencies	15	
<u>UNIT III.</u> PERSONALITY TYPES AND CREW RESOURCE MANAGEMENT 1.Barriers to Communication 2.Understanding personality types		
<ol> <li>Enhancing free flow of communication between crew members and passengers.</li> <li>Crew resource management</li> </ol>		

COURSE – VI USDAV202 EMERGENCY PROCEDURES IN	LECTURE HOURS	PRACTICAL HOURS
EVACUATION AND DITCHING		
UNIT - I SAFETY AND EMERGENCY PROCEDURES 1. Emergency situations 2. Safety and emergency procedures manual 3. Safety demonstration 4. Brace positions 5. Emergency guidelines	15	40
<u>UNIT - II.</u>	15	
<b>EVACUATION</b> 1. Planned Evacuation 2. Briefing by the Pilot in Command 3. Briefing the cabin crew by Cabin In Charge 4. Emergency announcement 5. Cabin Preparation 6. Initiating Evacuation 7. Un anticipated Evacuation	15	
<u>UNIT – III</u> DITCHING 1. Evacuation over water 2. Briefing by the Pilot in Command 3. Briefing the cabin crew by Cabin In Charge 4. Emergency announcement 5. Cabin Preparation 6. Initiating Ditching 7. Survival at Sea		

COURSE – VII	LECTURE	PRACTICAL
USDAV203- FIRE SAFETY & SECURITY	HOURS	HOURS
PROCEDURES		
UNIT - I FIRE SAFETY AND FIRE FIGHTING		
1.Classification of fires		
2. Cabin fires and common causes	15	40
3. Lavatory fires		
4. Smoke evacuation		
5. Fire fighting, equipments and procedures		
<u>UNIT – II</u>	15	
DECOMPRESSION		
1.Asphyxia and its effects		
2. Rapid decompression		
3. Slow Decompression		
4. Cabin indication for decompression	15	
5. Actions and procedures during decompression		
6. Crew Incapacitation		
UNIT – III		
AVIATION SECURITY		
1. General precautions		
2. Bomb threats, types, procedures and handling		
3. Hijacking, action and procedures		
4. Unruly passengers		

COURSE VIII USDAV204 - FIRST AID & CARRIAGE OF	LECTURE HOUR	PRACTICAL HOURS
DANGEROUS GOODS RULES		
<u>UNIT- I</u> DANGEROUS GOODS	15	40
1. Dangerous good definitions and classifications	10	••
2. Rules relating to carriage of dangerous goods		
3. Cabin crew procedures for dangerous goods		
emergency	15	
UNIT – II		
MEDICAL EMERGENCIES & FIRST AID		
1.In-flight medical emergencies		
2.Identification of roles and responsibilities	15	
3. Symptoms and treatment		
4. Importance of First Aid		
5. Food Poisioning		
6. Death on board		
UNIT – III		
USE OF INFLIGHT RESOURCES		
1. Carriage of first aid and physician's kit on board		
2.Use of an on board medical professional		
3. Use of in-flight resources		
4. Blood borne pathogens and universal precautions		
5. Reporting to ground services about the nature of		
emergency 6. First aid Practical		
0. FIISt alu Practical		1

#### **List of Practical's**

The following practicals are suggestive and minimum. Practicals are based on each Unit of the course in the syllabus USDAV P1 Preparation of Application and Projection of Skills. Practical 1.1: Grooming, Makeup and Hair Style Practical 1.2: Attending passenger complaints and interaction Airport Code, Station Code and related terms Practical 1.3: familiarization from internet Visit to Aircraft Practical 1.4: Airline catering Visit and visit wine producing farm USDAV P2

Practical 2.1:	Communication between crew members and passengers		
	Crew Resource Management		
Practical 2.2:	Swimming		
Practical 2.3:	Handling and operation of fire fighting equipments		
Practical 2.4:	First Aid and Identification of dangerous goods		

	THEORY	PRACTICALS	NOTIONAL	Total	Credit
Semester I	185	80	70	335	10
Semester II	185	130	70	385	10
Total	370	210	145	720	20